Hilcorp Energy (formerly ConocoPhillips Company) [1]
Argenta Compressor Station
Full Compliance Evaluation (FCE)
On-Site Clean Air Act Evaluation

Inspection Date:	May 14, 2018
Date of Inspection Report:	July 3, 2018
EPA Representative	Laurie Ostrand
Tribal Representatives:	David Heermance, Southern Ute Indian Tribe Andrew Switzer, Southern Ute Indian Tribe
Company Representatives	Jennifer Deal, Hilcorp. Cory Minton, Operations Manager, Elite San Juan[2] Clint Thompson, Area Supervisor, Elite San Juan
Inspection Report Prepared By:	Laurie Ostrand /s/
Inspection Report Reviewed By:	Scott Patefield /s/
Applicable Rules:	MACT HH and ZZZZ (both area), and Tribal minor new source review
CAA Permit History Issued:	SMNSR-SU-000030-2011.001 April 11, 2014

I. General Source Information

Parent Company name:	Hilcorp Energy
Corporate Office Location:	382 Road 3100, Aztec, NM 87410
Facility Name:	Argenta Compressor Station
Facility Location	Latitude 37.12944, Longitude -107.93722
EPA Region:	8
County, State:	La Plata County, Colorado
Reservation:	Southern Ute Indian Reservation
Tribe:	Southern Ute Indian Tribe
SIC Code:	1311
AFS Plant Id Number:	08-067-U0040 (previous number 08-067-00363)
Other Clean Air Act Permits:	None

[1] This facility was formally owned and operated by ConocoPhillips but as of August 1, 2017 was purchased by Hilcorp.
[2] Elite San Juan operates and maintains the compressors for Hilcorp.

II. Summary of Enforcement Actions:

None in the past five (5) years. Although, the permit incorporates a 2/4/10 Federal Compliance Agreement and Final Order (CAFO) between the EPA and ConocoPhillips, see Docket No. CAA-08-2010-0007.

III. Overall Inspection Findings

As of the date of this inspection report, not all needed information was provided. Once all information is received EPA will issues an addendum to this report. EPA is still waiting to receive catalyst replacement information and catalyst pressure drop readings, both from 5/1/16 to 4/30/18.

- *If ASTM D6348 is going to be used for performance testing, the performance test protocol should be revised to assure that ASTM D6348-03 is used rather than ASTM D6348-12.*
- *Based on the information provided, it's not clear whether all appropriate actions have been taken when engine pre-catalyst temperature falls below 405°F;*
- *While onsite, the pressure drop observed across the catalysts on engines E001 and E002 was greater than 2 inches of water from the baseline pressure drop measured during the last performance test on 9/20/17.*
- *It appears that a performance test was not conducted within 90 calendar days after engine E001 was installed in 4/2015.*
- *When Hilcorp initially purchased Argenta they were late in submitting performance test results and failed to notify EPA of upcoming testing. This issue has since been resolved.*
- *Annual deviation reports indicate that the pressure drop across engine catalysts hasn't always met permit requirements. It's not clear whether all appropriate actions have been taken when this has occurred. As of the date of this report the pressure drop data had not been provided to the EPA.*

IV. Description of Facility

The Argenta Compressor Station (Argenta) dehydrates and compresses natural gas. The natural gas entering the compressor station flows through an inlet separator and mist screens where most of the water is removed. The water produced by this step is transferred to an on-site storage tank. The natural gas is further dried in a glycol dehydration system before leaving the facility.

The facility currently operates four 4-stroke, lean burn Waukesha L7042GL engines with a site rating of 1,330 horsepower (hp) each, a glycol dehydration system capable of processing 75 million standard cubic feet per day (MMscfd), miscellaneous organic liquid storage tanks, a tank heater, and an emergency generator. All combustion units are gas-fired units fueled with natural gas (NG) supplied from the surrounding wells.

According to the permit application, the Argenta engines were manufactured prior to July 1, 2007 and, therefore, <u>are not</u> subject to NSPS Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The permit application also indicates that the Argenta station is an area source of hazardous air pollutants (HAPS) and all the engines commenced construction prior to June 12, 2006. Therefore, the engines are existing affected sourced under NESHAP Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (RICE), and subject to the emission limits and standards in Subpart ZZZZ.

Additionally, the permit application indicates that the TEG dehydrators uncontrolled potential benzene emissions are below 1.0 tpy; therefore, the Argenta station must only maintain records of this determination under 40 CFR 63.774(d)(1) in the NESHAP Subpart HH – Oil and Natural Gas Production Facilities.

Table 1: Emission Units and Emission Generating Activities

Unit ID	Description*	Control Equipment	Observations
E001 (Engine #1)	Natural Gas Fired Waukesha 4-SLB Engine Reciprocating internal combustion engine (RICE) Model No. L 7042 GL - 1330 hp Serial Number: C-13404/1[3] Manufacture Date: 10/31/01 Installation Date – 4/14/15	Miratech Oxidation Catalyst	*Operating* *Serial # read: 13404/1* *Build date 10/01; Rebuilt date: 1/28/14* *Catalyst inlet temp: 648.8°F* *Pressure drop across catalyst: 7.6"* *Inlet pressure: 19.5 psi; 1st stage: 100 psi; 2nd stage: 340; RPM: 1050* *Per 5/30/18 email from Ms. Deal:* *Install date: 04/16/2015* *Manufacture date: 11/1997* *Rebuild date: 01/29/2014*
E002 (Engine #2)	Natural Gas Fired Waukesha 4-SLB Engine Reciprocating internal combustion engine (RICE) Model No. L 7042 GL - 1330 hp Serial Number: C-60768/1 Manufacture Date: Prior to 07/01/07 Installation Date – 6/28/06	Miratech Oxidation Catalyst	*Operating* *Serial # read: 60768/1* *Build date 11/97; Rebuilt date: 7/2013* *Catalyst inlet temp: 630.3°F* *Pressure drop across catalyst: 9.5"* *Inlet pressure: 21 psi; 1st stage: 100 psi; 2nd stage: 320; RPM: 1042* *Per 5/30/18 email from Ms. Deal:* *Install date: 03/12/2013* *Manufacture date: 11/1997* *Rebuild date: 02/04/2013*

[5] *May 5, 2015 letter from ConocoPhillips indicates E001 was replaced with C-13404/1 (manufactured on 10/31/01) on 4/14/15.*

Unit ID	Description*	Control Equipment	Observations
E003 (Engine #3)	Natural Gas Fired Waukesha 4-SLBurn Engine Reciprocating internal combustion engine (RICE) Model No. L 7042 GL - 1330 hp Serial Number: C-11671/1 Manufacture Date: Prior to 07/01/07 Installation Date – 9/15/05	Johnson Matthey Oxidation Catalyst	*Not operating* *Serial # read: 11671/1* *Build date 8/95; Rebuilt date: 8/2010* *Per 5/30/18 email from Ms. Deal:* *Install date: 01/12/2005* *Manufacture date: 11/1997* *Rebuild date: NA*
E004 (Engine #4)	Natural Gas Fired Waukesha 4-SLBurn Engine Reciprocating internal combustion engine (RICE) Model No. L 7042 GL - 1330 hp Serial Number: C-13404/1 (this is now E001) Manufacture Date: Prior to 07/01/07 Installation Date – 11/28/07	Miratech Oxidation Catalyst	*Not operating* *Serial # read: 11672/1* *Build date 9/95; Rebuilt date: 7/2013* *Per 5/30/18 email from Ms. Deal:* *Install date: 01/12/2005* *Manufacture date: 09/1995* *Rebuild date: NA*
E005	NATCO Glycol Dehydration Unit Actual Rate: 14.5 MMscf/day Maximum Rate: 45 MMscf/day Model No. - Unknown Serial No. – Unknown Installation date 2/15/2002		*There are 4 dehys; 2 were operating. All had Kimray pumps, the model numbers were not visible during the inspection. In an email dated 6/6/18, Ms. Deal indicated they were model #'s Kimray 10015.* *Dehy #1 – pump had 29 strokes/minute* *Dehy #2 - pump had 38 strokes/minute*
E006	Miscellaneous storage tanks – shown in Table 2		
E007	0.25 MMBtu/hr tank heater		

Unit ID	Description*	Control Equipment	Observations
E008	Generac Backup Power Emergency Generator, 0.31 MMBtu/hr Model No. QTA025		*Serial # 4664S4M* *SDS8705* *Generac Generator, Mitsubishi engine*

*Hp = horsepower; MMscfd = million standard cubic feet per day; MMBtu/hr = million British thermal units per hour.

Table 2 – Insignificant Emission units

Description
LO-1 to LO-6, Lube Oil, 500 gallons each, annual throughput 5,000 gallons each
BGT-1 to BGT-3, Pit Sump Liquids, 5,040 gallons each, annual throughput 20,160 gallons each
BGT-4, Pit Sump Liquids, 2,520 gallons, annual throughput 20,160 gallons
UO-1 to UO-2, Used Oil 2,400 gallons each, annual throughput 24,000 gallons each
AF-1 to AF-2, Antifreeze, 500 gallons each, annual throughput 5,000 gallons each
TEG-1 to TEG-2, Triethylene Glycol, 300 gallons each, annual throughput 3,000 gallons, each
PWT-1, Produced Water, 16,800 gallons, annual throughput 168,000 gallons

Table 3: Allowable Emission Proposed in Permit Application (tons per year)

Unit ID	NOx*	CO*	VOC*	PM*	SO_2*	CH_2O*	Benzene	Total HAPs*
E001	23.12	5.5	1.28	0.50	0.73	0.45	0.002	0.525
E002	23.12	5.5	1.28	0.50	0.73	0.45	0.002	0.525
E003	23.12	5.5	1.28	0.50	0.73	0.45	0.002	0.525
E004	23.12	5.5	1.28	0.50	0.73	0.45	0.002	0.525
E005	0.83	0.70	7.18	0.06	0.12	-	1.04	5.52
E006	-	-	0.008	-	-	-	-	-
E007	0.11	0.09	0.006	0.008	0.02	-	-	0.002
E008	0.06	1.11	0.03	0.001	0.001	-	-	-
Total	93.47	24.10	12.36	2.07	3.07	1.79	1.05	7.62

*NOx = nitrogen oxide; CO = carbon monoxide; VOC = volatile organic compound; PM = particulate matter; SO_2 = sulfur dioxide; CH_2O = formaldehyde; HAP = hazardous air pollutant.

V. General Inspection Observations and Commentary:

On May 14, 2018, EPA representative Laurie Ostrand met with Jennifer Deal, Hilcorp, and Cory Minton and Clint Thompson, Elite San Juan, along with David Heermance and Andrew Switzer of the Southern Ute Indian Tribe. Ms. Ostrand travelled with Mr. Heermance and Mr. Switzer to Sunnyside Compressor Station and then to the Argenta Compressor Station. On May 15, 2018, following an inspection of the Hilcorp's Ute Compressor Station, Ms. Ostrand, Mr. Heermance and Mr. Switzer went to Hilcorp's offices and met with Ms. Deal to conduct a records review.

VI. Opening Meeting:

We arrived at Argenta at 3:01 pm. Ms. Ostrand indicated we wanted to walk around the facility and look at the equipment.

VII. Walk Through Inspection Observations:

Mr. Minton indicated that:

- *Engines #1 and #2 were operating;*
- *Engines #3 and #4 were in standby;*
- *Hilcorp previously had two engines and a dehydrator up on the hill behind the compressor building but the engines had been removed and the dehydrator, although still on site, had been mothballed;*
- *There is a standby propane generator up on the hill behind the compressor building;*
- *Inlet gas comes from nearby Hilcorp wells and the outlet goes to the Williams Ignacio Gas Plant;*
- *They were currently running at about 8.8 mmscfd; about ten years ago they ran at about 60 mmscfd;*
- *Inlet pressures are about 20 psi and outlet about 307 psi*
- *Pneumatics are No bleed/Low bleed;*
- *The semiannual LDAR survey is of the whole facility;*
- *Catalyst beds in Engines #1 and #2 are combined inside the muffler;*
- *Catalyst bed on Engine #3 is a drop-in catalyst and the catalyst on Engine #4 is a banded catalyst (it's circular and fits into the exhaust pipe);*
- *Each engine has its own dehydrator; e.g., Engine #1 goes to Dehy #1, etc.;*
- *They blowdown the compressors to atmosphere; a log is kept of the blowdowns and the log is turned in monthly to operations.*

During the inspection, Mr. Heermance was also videoing various equipment with a FLIR camera. See Table 12.

Image 1: Argenta, Aerial view from Google Maps.

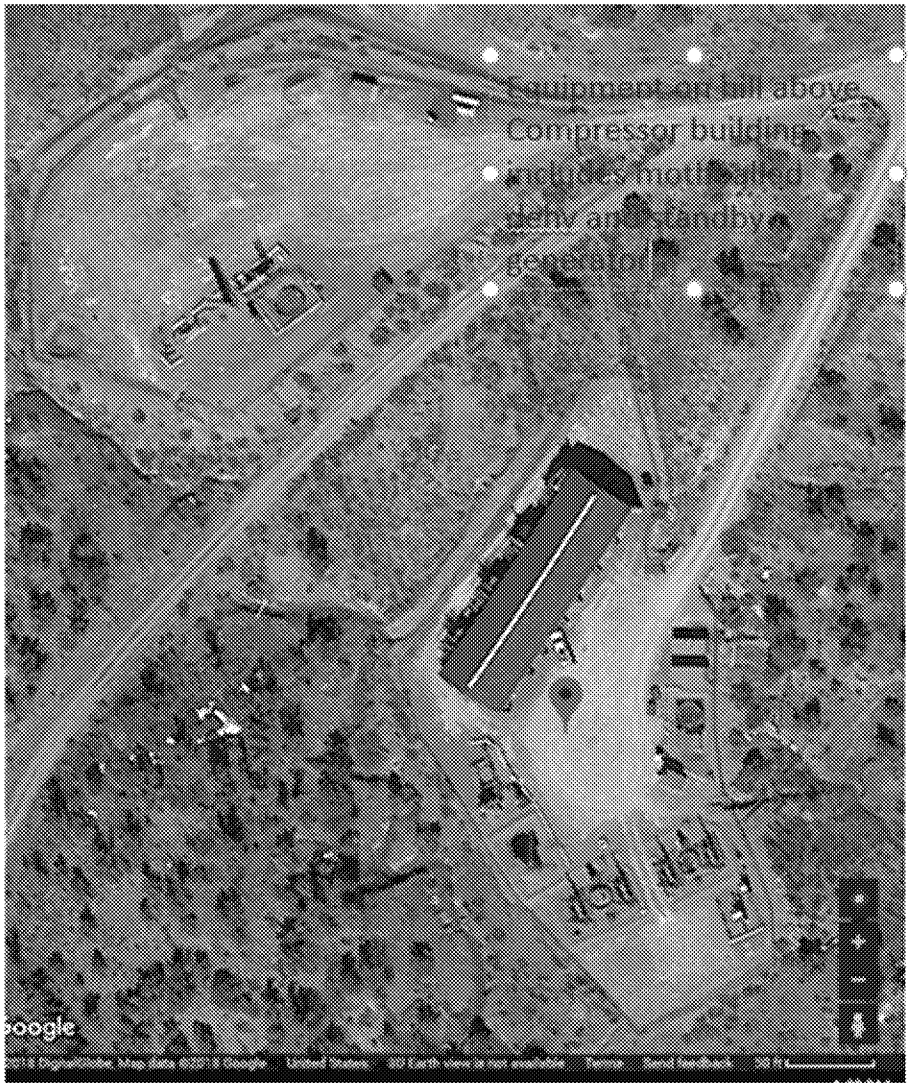

Image 2: Argenta, Aerial view form google Maps include equipment on hill behind compressor building.

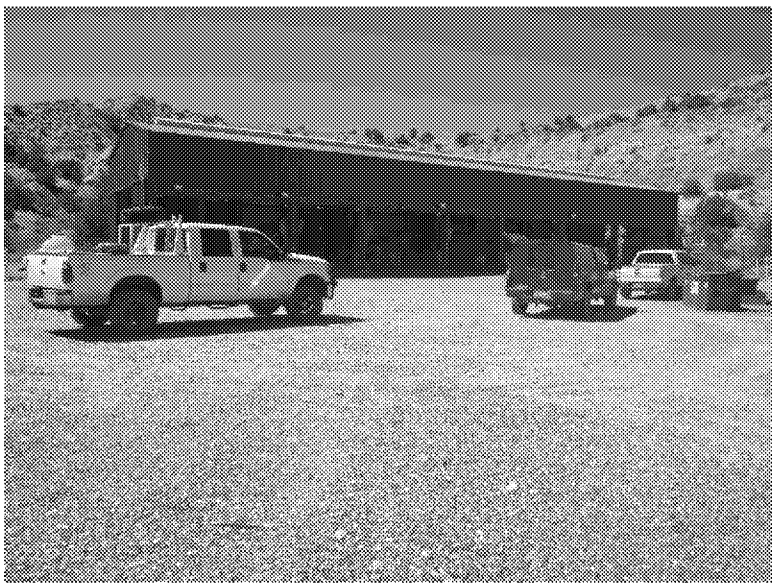

Image 3: Argenta compressor building. RIMG0010.JPG.

Image 4: Argenta inlet. RIMG0011.JPG

Image 5: Argenta CS produced water tank. RIMG0012.JPG

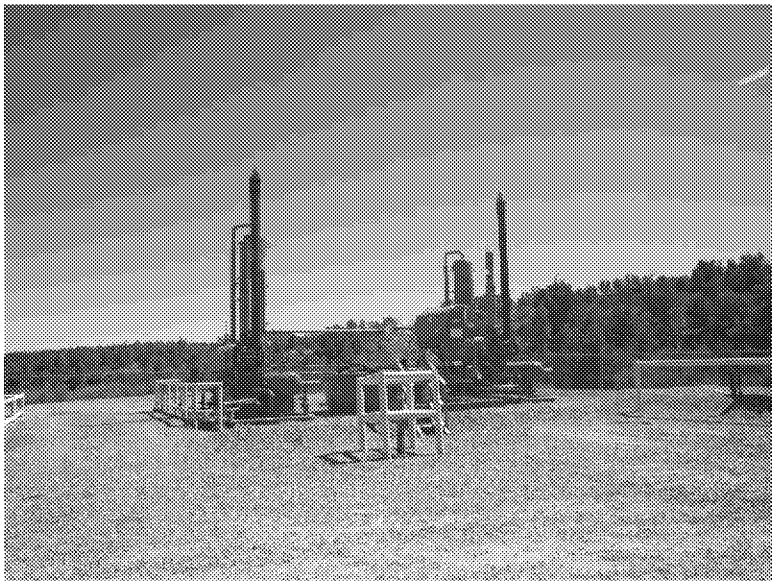

Image 6: Argenta Dehy #1 on right, Dehy #2 on left. RIMG0013.JPG

Image 7: Argenta Dehy #3 on right Dehy #4 on left, RIMG0014.jpg

Image 8: Argenta Dehy #1 pump, RIMG0015.JPG

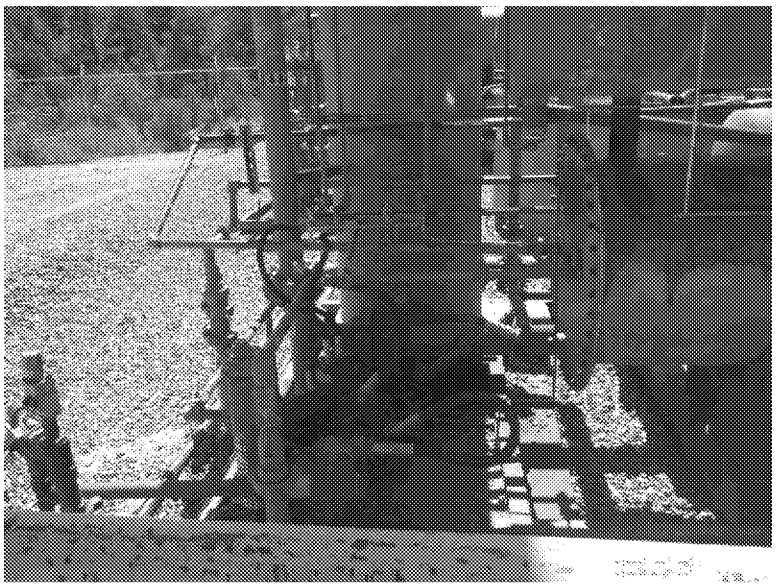

Image #9: Argenta Dehy #2 pump, RIMG0016.JPG.

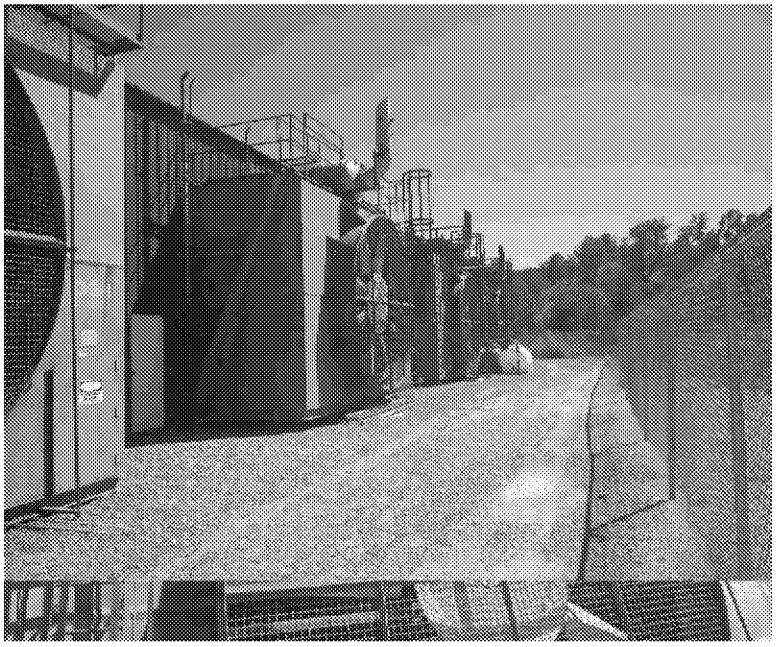

Image #10, Argenta, backside of engines showing catalysts. Engines #1 and #2 have catalysts in the muffler (catalysts are lengthwise in muffler). Catalyst in #3, third from right, is a drop-in catalyst (see rectangle drop in point neat building), RIMG0017.JPG;

Image 11: Argenta Engine #4 catalyst is a banded catalyst (i.e., circular catalyst inside pipe prior to the

muffler). RIMG0018.JPG

Image 12: Argenta Dehy #3 pump, RIMG0019.JPG

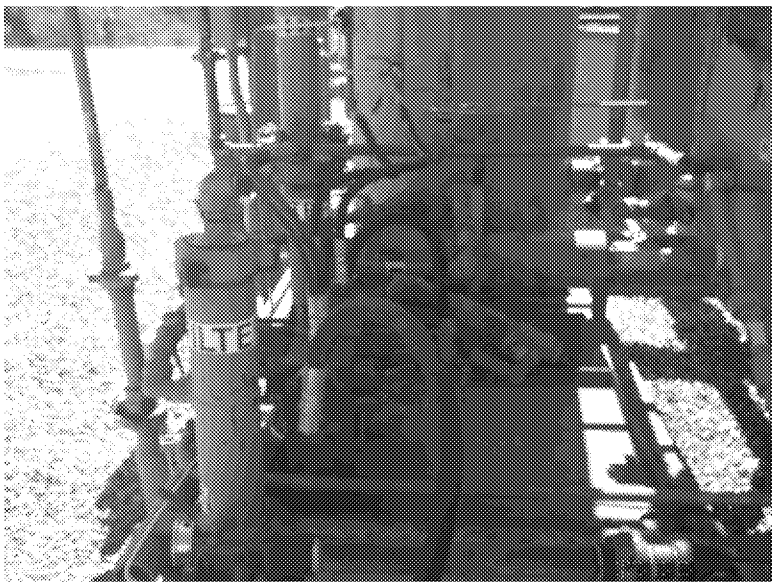

Image 13: Argenta Dehy #4 pump. RIMG0020.JPG

VIII. Permit Requirements:

Note that with respect to this full compliance evaluation, the EPA is generally reviewing data and information from roughly 5/1/16 to 4/30/18.

I. Conditional Permit to Construct

C. Requirements for Engines

1. Construction and Operational Limits

The Permittee shall install and operate emission controls as specified in this permit on four (4) reciprocating internal combustion engines each meeting the following specifications:

(a) Operated as a 4-stroke lean-burn;
(b) Fired with natural gas; and
(c) Limited to a maximum site rating of 1,330 horsepower (hp).
(a) Only the approved natural gas-fired reciprocating internal combustion engines that are operated and controlled as specified in this permit may be installed and operated.

Observations: *Hilcorp's database indicates that all engines are Waukesha model # L7042GL. The engine information sheet submitted with the Argenta permit application indicates that Waukesha Model L7042GL are "turbocharges and intercooled, twelve-cylinder, lean combustion, four-cycle gas engines." The engine information sheet also indicates that at 1000 rpm the brake horse power is 1289. During the inspection, Engine # 1 and Engine #2 were at 1050 and 1042 rpms, respectively.*

2. Emission Limits

(a) Emissions from each engine shall not exceed the following:

(i) NO_X: 5.28 pounds per hour (lb/hr);
(ii) CO: 1.27 lb/hr; and
(iii) CH_2O: 0.15 lb/hr.

(b) Emission limits shall apply at all times, unless otherwise specified in this permit.

Observations: *See Table 5 below showing annual stack test results and Table 7 showing quarterly monitoring results.*

3. Control and Operational Requirements

(a) The Permittee shall ensure that the engines are equipped with a catalytic control system capable of reducing the uncontrolled emissions of CO and CH_2O to meet the emission limits specified in this permit.

Observations: *During the inspection, Mr. Minton identified where the catalysts were located on all the engine stacks. See Images #10 and #11.*

(b) The Permittee shall install, operate, and maintain temperature sensing devices (i.e., thermocouple or resistance temperature detectors) before the catalytic control system on each engine in order to continuously monitor the exhaust temperature at the inlet of the catalyst bed. Each temperature sensing device shall be calibrated and operated by the Permittee according to manufacturer specifications or equivalent specifications developed by the Permittee or vendor.

Observations: *During the inspection, Mr. Minton retrieved the catalyst inlet temperature data for the operating engines from the computer monitors near the engines. See also information below regarding temperature data provided following the inspection.*

(c) Except during startups, not to exceed 30 minutes, the engine exhaust temperature of each engine, at the inlet to the catalyst bed, shall be maintained at all times the

engines operate with an inlet temperature of at least 450° F and no more than 1,350°F.

Observations: *No start-ups were observed during the inspection. See discussion below regarding review of temperature data submitted following the inspection.*

(d) During operation, the pressure drop across the catalyst bed on each engine shall be maintained to within ± 2 inches of water from the baseline pressure drop measured during the most recent performance test. The baseline pressure drop for the catalyst bed shall be determined at 100% ± 10% of the engine load measured during the most recent performance test.

Observations: *During the inspection, Ms. Ostrand observed the real-time pressure drop monitored across each engine catalyst. See information below regarding pressure drop readings provided following the inspection.*

(e) The Permittee shall only fire each engine with natural gas. The natural gas shall be pipeline-quality in all respects except that the carbon dioxide (CO_2) concentration in the gas is not required to be within pipeline-quality.

Observations: *In an email dated 6/25/18, Ms. Deal indicated that they perform annual gas analysis to demonstrate that the fuel used for engines is pipeline quality natural gas.*

(f) The Permittee shall follow, for each engine and its respective catalytic control system, the manufacturer recommended maintenance schedule and procedures or equivalent maintenance schedule and procedures developed by the Permittee or vendor to ensure optimum performance of each engine and its respective catalytic control system.

Observations: *During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. Ms. Deal indicated that the catalyst maintenance is also included in the Task Lists. In an email dated 6/6/18, Ms. Deal provided engine and catalyst manufacturer recommended maintenance specifications. In an email dated 6/21/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018.*

(g) The Permittee may rebuild an existing permitted engine or replace an existing permitted engine with an engine of the same horsepower rating, and configured to operate in the same manner as the engine being rebuilt or replaced. Any emission limits, requirements, control technologies, testing or other provisions that apply to the permitted engines that are rebuilt or replaced shall also apply to the rebuilt and replaced engines.

Observations: *In an email dated 5/30/18, Ms. Deal indicated that #1 (SN C13404/1) was installed on 4/16/15 and rebuilt on 1/29/14; #2 (SN C—60768/1) was installed on 3/12/13*

and rebuilt on 2/4/13); #3 (SN C11671/1) was installed on 1/12/05 and has not been rebuilt; and #4 (SN C-11672/1) was installed on 1/12/05 and has not been rebuilt. However, information recorded on engine tags during the inspection indicate that #3 was rebuilt on 8/20/10 and #4 in 7/2014.

(h) The Permittee may resume operation without the catalytic control system during an engine break-in period, not to exceed 200 operating hours, for rebuilt and replaced engines.

Observations: *None made during the inspection.*

4. Performance Testing Requirements

(a) Performance tests shall be conducted on each engine for measuring NO_X, CO, and CH_2O emissions to demonstrate compliance with each emission limitation in this permit. The performance tests shall be conducted in accordance with appropriate reference methods specified in 40 CFR Part 63, Appendix A and 40 CFR Part 60, Appendix A, or an EPA approved American Society for Testing and Materials (ASTM) method. The Permittee may submit to the EPA a written request for approval of an alternate test method, but shall only use that alternate test method after obtaining approval from the EPA.

(i) The initial performance test for each engine shall be conducted within 90 calendar days of startup of a new engine.
(ii) Subsequent performance tests for CH_2O emissions shall be conducted within 12 months of the most recent performance test.
(iii) Performance tests shall be conducted within 90 calendar days of each catalyst replacement.
(iv) Performance tests shall be conducted within 90 calendar days of startup of all rebuilt and replaced engines.

Observations: *See Table 5, below, for annual performance tests results. Engine installation date and rebuild date are provided in the* ***Observations*** *under Section C.3(g), above. It appears that a performance test was not conducted within 90 calendar days after engine E001 was installed in 4/2015.* ***As of the date of this report the catalyst replacement dates had not yet been provided to EPA.***

(b) The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or processes or operational parameters the day of the engine testing or during the engine testing. Any such tuning or adjustments may result in a determination by the EPA that the test is invalid. Artificially increasing an engine load to meet testing requirements is not considered engine tuning or adjustments.

Observations: *During the records review Ms. Deal indicated that since she's been there she is not aware of any testing being aborted or any tuning or adjustments being made during testing.*

(c) The Permittee shall not abort any engine tests that demonstrate non-compliance with the emission limits in this permit.

Observations: *See discussion immediately above.*

(d) All performance tests conducted on each engine shall meet the following requirements:

(i) The pressure drop across each catalyst bed and the inlet temperature to each catalyst bed shall be measured and recorded at least once during each performance tests.

(ii) All tests for NO_X and CO emissions shall be performed simultaneously.

(iii) All tests shall be performed at a maximum operating rate (90% to 110% of the maximum achievable engine load available on the day of the test). The Permittee may submit to the EPA a written request for approval of an alternate load level for testing, but shall only test at that alternate load level after obtaining written approval from the EPA.

(iv) During each test run, data shall be collected on all parameters necessary to document how emissions were measured and calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.).

(v) Each test shall consist of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits in this permit.

(vi) Performance test plans shall be submitted to the EPA for approval 60 calendar days prior to the date the test is planned.

(vii) Performance test plans that have already been approved by the EPA for the emission units approved in this permit may be used in lieu of new test plans unless the EPA requires the submittal and approval of new test plans. The Permittee may submit new plans for EPA approval at any time.

Observations*: The test plan was submitted on 4/13/16 and EPA approved it on 7/12/16. The 9/8/16 test report indicates that there was an addendum to the test protocol which was submitted on 9/6/16. The addendum is adding Method 323 for formaldehyde testing. The 4/13/16 and 9/8/16 documents indicate that the following test methods to be used include:*

Table 4: Test methods used:

	Synopses of operational test methods
Flow Rate	*EPA Method 19*
H_2CO, NOx CO, O_2 and CO_2	*ASTM D6348-12**, Method 323*
O_2 and CO_2	*EPA Method 3a*
NOx	*Method 7e*
CO	*Method 10*

***MACT ZZZZ and NSPS JJJJ allow the use of ASTM D6348-03. During the records*

review Ms. Ostrand indicated that in the future, if Hilcorp intends to use ASTM D6348 they need to use ASTM D6348-03 rather than ASTM D6348-12.

Table 5: Performance test results:

Test Date	*Engine Unit Number*	*Serial #*	*% Load*	*Test length/ engine*	*NOx lbs/hr*	*CO lbs/hr*	*H_2CO lbs/hr*	*Pres Drop*	*Inlet Cat Temp*
9/20/17	*E001*	*C-13404/1*	*83.0*	*3 1-hour*	*3.68*	*0.18*	*0.084*	*3.4*	*699*
	E002	*C-60768/1*	*86.7*		*2.77*	*0.13*	*0.142*	*4.8*	*712*
	E003	*C-11671/1*	*86.6*		*3.69*	*0.40*	*0.130*	*2.1*	*655*
	E005	*C-11672/1*	*Not tested*						
9/6/16	*E001*	*C-13404/1*	*92.1*	*3 1-hour*	*2.39*	*0.24*	*0.124*	*0.2*	*655*
	E002	*C-60768/1*	*86.3*		*2.89*	*0.28*	*0.095*	*0.2*	*656*
	E003	*C-11671/1*	*75.5*		*1.65*	*0.64*	*0.096*	*2.9*	*650*
	E005	*C-11672/1*	*Not tested*						
9/2/15	*E001*	*C-13404/1*	*81.7*	*3 – 1-hour*	*2.20*	*0.81*	*0.086*	*4.9*	*649*
	E002	*C-60768/1*	*81.7*		*1.93*	*0.18*	*0.093*	*7.9*	*652*
	E003	*C-11671/1*	*74.6*		*2.00*	*0.19*	*0.086*	*0.8*	*652*
	E005	*C-11672/1*	*88*		*2.18*	*0.43*	*0.097*	*1.6*	*676*
9/18/14	*E001*	*C-11542/1*	*90*	*3 – 1-hour*	*2.50*	*0.85*	*0.104*	*1.5*	*693*
	E002	*C-60768/1*	*90*		*1.98*	*0.17*	*0.085*	*4.5*	*702*
	E003	*C-11671/1*	*95*		*2.26*	*0.44*	*0.072*	*6.4*	*667*
	E005	*C-11672/1*	*75*		*1.68*	*0.21*	*0.078*	*4.0*	*693*

(viii) The test plans shall include and address the following elements:

(A) Purpose of the test;
(B) Engines and catalytic control systems to be tested;
(C) Expected engine operating rate(s) during the test;
(D) Sampling and analysis procedures (sampling locations, test methods, laboratory identification);
(E) Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and
(F) Data processing and reporting (description of data handling and quality control procedures, report content).

Observations: *On 4/13/16 ConocoPhillips submitted the test plan and monitoring protocol for Argenta. Generally, the test plan and monitoring protocol contain the above information. The 4/13/16 document indicates that historically performance testing has been conducted in the 3rd quarter and portable monitoring in 1st, 2nd and 4th quarter.*

(e) The Permittee shall notify the EPA at least 30 calendar days prior to scheduled performance testing. The Permittee shall notify the EPA at least 1 week prior to scheduled performance testing if the testing cannot be performed.

Observations: *Generally, Hilcorp (formerly ConocoPhillips) submits notifications of testing as required, except as highlighted below.*

Table 6: Notification of testing

Date of notification	*Date of testing*
Not notified	*9/20/17*
8/18/16 (revised) *7/5/16 (original)*	*9/6/16 to 9/9/16*
7/5/16	*9/12/16 to 9/16/16*
7/14/15	*9/4/15*
8/6/14	*9/15/14*

(f) If a permitted engine is not operating, the Permittee does not need to start up the engine solely to conduct a performance test. The Permittee may conduct the performance test when the engine is started up again.

Observations: *Annual performance tests have been conducted on all operating engines. See discussion under Section C.5.(f), below, regarding engine operating time reporting errors in the 2016 and 2017 annual emission inventory.*

5. Monitoring Requirements

(a) The Permittee shall continuously monitor the engine exhaust temperature of each engine at the inlet to the catalyst bed.

Observations: *During the inspection, Ms. Ostrand observed the real-time catalyst inlet temperature data for the operating engines. Additionally, in an email dated 6/25/18, Ms. Deal provided the catalyst inlet temperature data recorded between 6/25/16 and 4/30/18 at the 4 engines. Over 52,000 data points were provided for each engine. Additionally, in an email dated 6/19/18, Ms. Deal provided a spreadsheet indicating reasons why temperature data may have been out of range.*

The temperature data for Engine #4 show all readings were below 119°F. Engine # 4 only operated 18 hours in 2016 and 0 hours in 2017. See Section C.5.(f) below. Engine #4 was not operating when EPA was onsite.
For Engine #'s 1-3, none of the temperature data was greater than 1,350°F.
Engine #1, 53,595 temperature values were reported, 2,248 (or 4.2%) were less than 450°F.
Engine #2, 52,182 temperature values were reported, 4,536 (or 8.7%) were less than 450°F.
Engine #3, 55,642 temperature values were reported, 50,265 (or 8.7%) were less than 450°F. As indicated below, Engine #3 only operated 1,897 hours in 2016 and 207 hours in 2017.

(b) Except during startups, not to exceed 30 minutes, if the engine's exhaust temperature at the inlet to the catalyst bed deviates from the acceptable ranges specified in this permit then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.

(i) Within 24 hours of determining a deviation of the engine exhaust

temperature at the inlet to the catalyst bed, the Permittee shall investigate. The investigation shall include testing the temperature sensing device, inspecting the engine for performance problems and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and fouled, destroyed or poisoned catalyst).

(ii) If the engine exhaust temperature at the inlet to the catalyst bed can be corrected by following the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the engine exhaust temperature at the inlet to the catalyst bed within 24 hours of inspecting the engine and catalytic control system.

(iii) If the engine exhaust temperature at the inlet to the catalyst bed cannot be corrected using the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system has been damaged, then the affected engine shall cease operating immediately and shall not be returned to routine service until the following has been met:

(A) The engine exhaust temperature at the inlet to the catalyst bed is measured and found to be within the acceptable temperature range for that engine; and

(B) The catalytic control system has been repaired or replaced, if necessary.

Observations: *See discussion above regarding review of the temperature data provided after the inspection. It's not clear what actions have been taken to address instances when temperature was out of range. As indicated above, a spreadsheet was provided that indicates reasons why the temperature may have been out of range. However, not all of the temperature readings less than 450°F are identified on the spreadsheet.*

(c) The Permittee shall monitor the pressure drop across the catalyst bed on each engine every 30 days using pressure sensing devices before and after the catalyst bed to obtain a direct reading of the pressure drop (also referred to as the differential pressure). *[Note to Permittee: Differential pressure measurements, in general, are used to show the pressure across the filter elements. This information will determine when the elements of the catalyst bed are fouling, blocked or blown out and thus require cleaning or replacement.]*

Observations: *During the inspection, Ms. Ostrand observed the real-time pressure drop being monitored across the catalyst on all operating engines.* ***As of the date of this report the catalyst data had not yet been provided to EPA.***

(d) The Permittee shall perform the first measurement of the pressure drop across the catalyst bed on each engine no more than 30 days from the date of the initial performance test. Thereafter, the Permittee shall measure the pressure drop across the catalyst bed, at a minimum, every 30 days. Subsequent performance tests, as

required in this permit, can be used to meet the periodic pressure drop monitoring requirements provided it occurs within the 30-day window. The pressure drop reading can be a one-time measurement on that day, the average of performance test runs conducted on that day, or an average of all the measurements taken on that day if continuous readings are taken.

Observations: *See discussion immediately above.*

(e) If the pressure drop reading exceeds ± 2 inches of water from the baseline pressure drop established during the most recent performance test, then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit:

(i) Within 24 hours of determining a deviation of the pressure drop across the catalyst bed, the Permittee shall investigate. The investigation shall include testing the pressure transducers and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and plugged, fouled, destroyed or poisoned catalyst).

(ii) If the pressure drop across the catalyst bed can be corrected by following the catalytic control system manufacturer and/or vendor recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the problem within 24 hours of inspecting the catalytic control system.

(iii) If the pressure drop across the catalyst bed cannot be corrected using the catalytic control system manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system is damaged, then the Permittee shall do one of the following:

(A) Conduct a performance test within 90 calendar days, as specified in this permit, to ensure that the NO_X, CO, and CH_2O emission limits are being met and to re-establish the pressure drop across the catalyst bed. The Permittee shall measure CO and NO_X emissions using a portable analyzer and a monitoring protocol approved by the EPA to establish a new temporary pressure drop baseline until a performance test can be scheduled and completed; or

(B) Cease operating the affected engine immediately. The engine shall not be returned to routine service until the pressure drop is measured and found to be within the acceptable pressure range for that engine as determined from the most recent performance test. Corrective action may include removal and cleaning of the catalyst or replacement of the catalyst.

Observations: *While onsite, the pressure drop observed across the catalysts on engines E001 and E002 was greater than 2 inches of water from the baseline pressure drop measured during the last performance test on 9/20/17. The 1/31/18, 3/28/17, 3/31/16, and*

*3/31/15 annual deviation reports indicate that the "pressure drop across the catalyst bed was not always maintained within ± 2 inches of water during the reporting period. Fluctuations in pressure drop across the catalysts can occur due to changes in engine operating load." The deviation reports indicate that the following corrective actions or preventative measures were taken: "No corrective actions required. Investigate each month and verify with load calculations, monthly portable analyzer screenings are conducted to verify catalyst performance, and quarterly performance tests consistently demonstrate emission limits are being met." **As of the date of this report the catalyst pressure drop data had not yet been provided to EPA.***

(f) The Permittee shall measure NO_X and CO emissions from each engine at least quarterly to demonstrate compliance with each engine's emission limits in this permit. To meet this requirement, the Permittee shall:

(i) Measure NO_X and CO emissions at the normal operating load using a portable analyzer and a monitoring protocol approved by the EPA or conduct a performance test as specified in this permit;
(ii) Measure the NO_X and CO emissions simultaneously; and
(iii) Commence monitoring for NO_X and CO emissions within 6 months of the Permittee's submittal of the initial performance test results for NO_X and CO emissions to the EPA.

Observations: *Portable analyzer monitoring results have been submitted. See results in Table 7, below. Quarterly monitoring occurs in the 1st, 2nd, and 4th quarters and annual 3 1-hour performance tests are conducted in the 3rd quarter of the year.*

Table 7: Quarterly portable analyzer monitoring results:

Test Date	*Engine Unit Number*	*Serial #*	*% Load*	*Test length/ engine*	*NOx lbs/hr*	*CO lbs/hr*	*Pres Drop*	*Inlet Cat Temp*
3/6/18	*E001**	*C-13404/1*	*70*	*1 -21-minute*	*2.55*	*0.41*	*3.6*	*642*
	*E002**	*C-60768/1*	*70*		*1.35*	*0.18*	*3.5*	*635*
	E003	*C-11671/1*	*70*		*2.09*	*0.50*	*1.4*	*622*
	E005	*C-11672/1*	*Not tested*					
12/6/17	*E001*	*C-13404/1*	*70**	*1 -21-minute*	*2.57*	*0.32*	*3.6*	*642*
	E002	*C-60768/1*	*70**		*1.62*	*0.18*	*3.5*	*634*
	E003	*C-11671/1*	*Not tested*					
	E005	*C-11672/1*	*Not tested*					
6/6/17	*E001**	*C-13404/1*	*70*	*1 -21-minute*	*1.89*	*0.49*	*3.6*	*637*
	*E002**	*C-60768/1*	*70*		*1.12*	*0.12*	*3.5*	*633*
	E003	*C-11671/1*	*60*		*1.52*	*0.52*	*1.5*	*616*
	E005	*C-11672/1*	*Not tested*					
3/8/17	*E001*	*C-13404/1*	*70*	*1 -21-minute*	*2.47*	*0.34*	*0.4*	*635*
	E002	*C-60768/1*	*70*		*1.08*	*0.16*	*5.6*	*636*
	E003	*C-11671/1*	*60*		*1.61*	*0.47*	*2.7*	*634*
	E005	*C-11672/1*	*Not tested*					
12/12/16	*E001**	*C-13404/1*	*70*	*1 -21-minute*	*1.70*	*0.37*	*5.6*	*625*
	*E002**	*C-60768/1*	*70*		*1.36*	*0.16*	*5.9*	*630*
	E003	*C-11671/1*	*Not tested*					
	E005	*C-11672/1*	*Not tested*					

6/14/16	*E001*	*C-13404/1*	*67*	*1-21-minute*	*2.35*	*0.42*	*2.2*	*636*
	E002	*C-60768/1*	*70*		*2.13*	*0.19*	*2.5*	*637*
	E003	*C-11671/1*	*62*		*1.59*	*0.33*	*4.2*	*640*
	E005	*C-11672/1*	*Not tested*					
3/7/16	*E001*	*C-13404/1*	*80*	*1-21-minute*	*1.66*	*0.12*	*3.5*	*643*
	E002	*C-60768/1*	*75*		*1.48*	*0.12*	*3.7*	*627*
	E003	*C-11671/1*	*75*		*1.34*	*0.26*	*1.3*	*653*
	E005	*C-11672/1*	*Not tested*					

**EPA notes that during these portable analyzer monitoring, two engines were monitored at the same time. In an email dated 6/25/18, Ms. Deal stated, "CST has a couple of labs with dual sample system capabilities so they are able to test two engines at one time." Attached to Ms. Deal's 6/25/18 email was an email from the testing company also indicating that they have dual sample system capability.*

EPA also notes that the 2016 and 2017 annual emissions inventory shows that engine E004 (some stack test reports seem to refer to this unit as E005) operated 8061 and 8710, respectively, yet the engine was never tested in 2016 or 2017. Additionally, the 2016 annual emissions inventory shows that engine E001 only operated 18 hours yet it was tested quarterly. The 2017 annual emissions inventory shows that engine E001 did not operate yet it was tested quarterly.

In emails dated 5/29/18 and 6/6/18, Ms. Deal indicated that unit numbers got mixed up in the annual emissions inventory and the operating hours for all engines for 2016 and 2017 were as follows:

- *2016*
  - *Unit E001 = 8061*
  - *Unit E002 = 7155*
  - *Unit E003 = 1897*
  - *Unit E004 = 18*
- *2017*
  - *Unit E001 = 8710*
  - *Unit E002 = 7750*
  - *Unit E003 = 207*
  - *Unit E004 = 0*

(g) The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or processes or operational parameters on the day of or during measurements. Any such tuning or adjustments may result in a determination by the EPA that the result is invalid. Artificially increasing an engine load to meet the testing requirements is not considered engine tuning or adjustments.

Observations: *The EPA has not been present during testing. During the record review Ms. Deal indicated that since she's been there she is not aware of any tuning or adjustments being made during testing.*

(h) For any one (1) engine: If the results of 2 consecutive quarterly portable analyzer measurements demonstrate compliance with the NO_X and CO emission limits, the required monitoring frequency may change from quarterly to semi-annually.

Observations: *On 1/30/18 Hilcorp submitted test results and portable monitoring results from the third and fourth quarter 2017. Hilcorp's 1/30/18 letter indicates that they are going to go to semiannual monitoring since they had two quarters of data showing compliance with NOx and CO limits.*

(i) For any one (1) engine: If the results of any subsequent portable analyzer measurements demonstrate non-compliance with the NO_X or CO emission limits, required monitoring frequency shall change from semi-annually to quarterly.

Observations: *To date, no quarterly test results have shown non-compliance with emission limits.*

(j) The Permittee shall submit portable analyzer specifications and monitoring protocols for NO_X and CO to the EPA at the following address for approval at least 45 calendar days prior to the date of initial portable analyzer monitoring:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Observations: *A portable analyzer protocol was submitted to EPA on 4/13/16. EPA approved the protocol on 7/12/16. The 4/13/16 submittal indicates that they are using the Wyoming Portable Analyzer Protocol for testing.*

(k) Portable analyzer specifications and monitoring protocols that have already been approved by the EPA for the emission units approved in this permit may be used in lieu of new protocols unless the EPA requires the submittal and approval of a new protocol. The Permittee may submit a new protocol for EPA approval at any time.

(l) The Permittee is not required to conduct emissions monitoring and parametric monitoring of exhaust temperature and catalyst differential pressure on engines that have not operated during the monitoring period. The Permittee shall certify that the engine(s) did not operate during the monitoring period in the annual report specified in this permit.

Observations: *The annual emissions report identifies the operating hours of the engines. See discussion under Section C.5.(f), above, regarding engine operating time reporting errors in the 2016 and 2017 annual emission inventory.*

6. Recordkeeping Requirements

(a) Records shall be kept of manufacturer and/or vendor specifications and maintenance requirements developed by the manufacturer, vendor, or Permittee for each engine, catalytic control system, temperature-sensing device, and pressure-measuring device.

Observations: *During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. Ms. Deal*

indicated that the catalyst maintenance is also included in the Task Lists. In an email dated 6/6/18, Ms. Deal provided engine and catalyst manufacturer recommended maintenance specifications.

(b) Records shall be kept of all calibration and maintenance conducted for each engine, catalytic control system, temperature-sensing device, and pressure-measuring device.

Observations: *In an email dated 6/21/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted 2016, 2017 and 1/2018.*

(c) Records shall be kept that are sufficient to demonstrate that the fuel used for each engine is pipeline quality natural gas in all respects, with the exception of CO_2 concentrations.

Observations: *In an email dated 6/25/18, Ms. Deal indicated that they perform annual gas analysis to demonstrate that the fuel used for engines is pipeline quality natural gas. Ms Deal's 6/25/18 email contained an email from Adam Eisele, EPA to Sherrie McGowan, ConocoPhillips, where Mr. Eisele indicated that annual natural gas fuel testing was sufficient.*

(d) Records shall be kept of all temperature measurements required in this permit, as well as a description of any corrective actions taken pursuant to this permit.

Observations: *Temperature measurement data was provided on request.*

(e) Records shall be kept of all pressure drop measurements required in this permit, as well as a description of any corrective actions taken pursuant to this permit.

Observations: ***As of the date of this report the catalyst pressure drop data had not yet been provided to EPA.***

(f) Records shall be kept of all required testing and monitoring in this permit. The records shall include the following:

(i) The date, place, and time of sampling or measurements;
(ii) The date(s) analyses were performed;
(iii) The company or entity that performed the analyses;
(iv) The analytical techniques or methods used;
(v) The results of such analyses or measurements; and
(vi) The operating conditions as existing at the time of sampling or measurement.

Observations: *The performance test reports are submitted to EPA within required timeframes, except as noted above. Quarterly monitoring reports have also been submitted to EPA.*

(g) Records shall be kept of all catalyst replacements or repairs, engine rebuilds and engine replacements.

Observations: *As of the date of this report the catalyst replacement dates had not yet been provided to EPA. Engine rebuilds and replacement information was provided.*

(h) Records shall be kept of each rebuilt or replaced engine break-in period, pursuant to the requirements of this permit, where an existing engine that has been rebuilt or replaced resumes operation without the catalyst control system, for a period not to exceed 200 operating hours.

Observations: *This information was not reviewed.*

(i) Records shall be kept of each time any engine is shut down due to a deviation of the inlet temperature to the catalyst bed or pressure drop across the catalyst bed. The Permittee shall include in the record the cause of the problem, the corrective action taken, and the timeframe for bringing the pressure drop and inlet temperature range into compliance.

Observations: *In an email dated 6/25/18, Ms. Deal indicated that to their "knowledge a permitted engine has never been shut down due to deviations of the inlet temperature or catalyst bed or pressure drop across the catalyst bed."*

B. Requirements for Tri-Ethylene Glycol Dehydration Process

1. Construction and Operational Limits

(a) The following tri-ethylene glycol dehydration system is approved for installation and operation at the facility:

(i) Four (4) units; each limited to a maximum natural gas processing capacity of 10 MMscfd and a 0.375 MMBtu/hr natural gas fired tri-ethylene glycol reboiler; and

(ii) One (1) unit limited to a maximum natural gas processing capacity of 35 MMscfd, and a 1.5 MMBtu/hr natural gas fired tri-ethylene glycol reboiler, equipped with a flash tank whose emissions are used as fuel for the reboiler.

Observations: *There are five dehydrator units onsite. Four dehydrators are located at the same level of the compressor building and one was up on the hill behind the compressor building. Mr. Minton indicated that each engine has its own dehydrator; i.e., the four near the compressor building, and that the dehydrator located up on the hill was taken out of service and mothballed. Mr. Minton indicated that the engines on top of the hill were taken out of service and the engines and building were removed.*

(b) The Permittee shall process no more than 45 MMscfd of natural gas.

Observations: *See discussion below.*

(c) Only dehydration units that are operated and controlled as specified in this permit may be installed and operated.

2. Monitoring and Record Keeping Requirements

The Permittee shall monitor and record the total natural gas processed through the dehydration system, in MMscfd, on a monthly basis.

Observations: *Hilcorp indicated that the daily records of throughput through the facility (and therefore through the dehydrators) is maintained in their Signet SCADA[4] system. In an dated 6/29/18. Ms. Deal provided the daily throughput of gas processed at Argenta from 6/26/16 through 6/28/18. Ms. Deal indicated that the gas is usually split between two operating dehydrators. Between 6/26/16 and 6/28/18, the largest daily throughput was 10.46943 MMscf.*

E. Requirements for Pneumatic Controllers

1. The Permittee shall install, maintain, and operate pneumatic controllers that meet one or more of the following emission control technologies:

   (a) Air actuated controllers;
   (b) Electronically actuated controllers;
   (c) Low-bleed natural gas actuated controllers (no more than 6 standard cubic feet per hour of natural gas); or
   (d) No-bleed natural gas actuated controllers.

   Observations: *Mr. Minton indicated that all pneumatic controllers were low-bleed or no-bleed controllers. In an email dated 6/29/18, Ms. Deal provided a spreadsheet identifying the types of pneumatic controllers installed at the facility. The pneumatic controllers installed at Argenta are identified in Attachment 1.*

2. Each controller shall be operated and maintained according to manufacturer specifications or equivalent procedures developed by the Permittee or vendor.

3. Beginning with the effective date of this permit, records shall be kept of the date of installation of the controllers, the manufacturer specifications of the controllers or equivalent specifications developed by the Permittee or vendor, and all scheduled maintenance and repairs on the controllers.

   Observations: *In an email dated 6/29/18, Ms. Deal provided a spreadsheet identifying the types of pneumatic controllers installed at the facility. Ms. Deal also provided manufacturer literature, or links to manufacturer literature, on the controllers. Ms. Deal indicated that they have no records of the pneumatic controllers needing maintenance or repairs during 5/1/16 – 4/30/18.*

F. Requirements for Leak Detection and Repair (LDAR)

1. The Permittee shall implement a LDAR monitoring program for detecting emissions of volatile organic compound (VOC) emissions due to leaking equipment.

[4] SCADA = System Supervisory Control and Data Acquisition System

Observations: *Hilcorp (and formerly ConocoPhillips) submits semiannual and annual reports of the LDAR monitoring that is conducted.*

2. The Permittee shall develop a written LDAR protocol that, at a minimum, specifies the following:

   (a) The use of an infrared camera for the detection of VOC leaks;
   (b) The technical procedures for monitoring with the infrared camera;
   (c) A schedule for conducting semiannual monitoring;
   (d) Monitoring of "equipment" per the approved LDAR protocol;
   (e) A definition of when a "leak" is detected;
   (f) A repair schedule for leaking equipment (including delay of repair); and
   (g) A recordkeeping format.

   Observations*: The LDAR protocol was submitted to EPA on 7/31/12.*

3. The Permittee shall submit the LDAR protocol to the EPA at the following address for approval at least 45 calendar days prior to the date of initial monitoring:

   U.S. Environmental Protection Agency, Region 8
   Office of Enforcement, Compliance & Environmental Justice
   Air Toxics and Technical Enforcement Program, 8ENF-AT
   1595 Wynkoop Street
   Denver, Colorado 80202

4. LDAR protocols that have already been approved by the EPA may be used in lieu of new protocols unless the EPA determines it is necessary to require the submittal and approval of a new LDAR protocol.

5. The Permittee may submit a revised LDAR protocol at any time for EPA approval. The existing LDAR protocol will remain in effect until a revised LDAR protocol is approved by the EPA.

   Observations*: The LDAR protocol was submitted to EPA on 7/31/12. Ms. Deal also provided a copy of the protocol on 6/25/18. Neither Ms. Deal nor Ms. Ostrand could find a copy of EPA's approval. However, the 7/31/12 letter submitting the Argenta and Sunnyside Compressor Station LDAR protocol indicates the protocol submitted on 7/31/12 was the same at the Ute LDAR CDP LDAR protocol which was approved in a 5/24/12 email from EPA.*

6. In the event that the EPA determines that the LDAR monitoring program is not meeting its intended goals, the Permittee shall submit a revised LDAR protocol upon request by the EPA.

   Observations*: EPA has not determined that the LDAR monitoring program is not meeting its intended goals.*

7. Leak detection monitoring shall commence upon approval of the LDAR protocol by the EPA.

   Observations*: The LDAR protocol was submitted to EPA on 7/31/12. Based on LDAR*

reports submitted, LDAR monitoring is being conducted.

8. LDAR monitoring shall be conducted at least semi-annually in accordance with an approved LDAR protocol and shall be conducted a minimum of 5 calendar months apart.

***Observations**: Hilcorp (formerly ConocoPhillips) submits semiannual and annual reports of the LDAR monitoring that is conducted. According to the semiannual reports, monitoring has been conducted on: 4/9/18; 9/13/17; 3/13/17; 9/13/16; 3/7/16; 9/13/16; 3/7/16; 9/1/15; 3/10/15; 9/9-9/10/14; 3/18/14.*

9. The Permittee shall notify the EPA in writing at least 30 calendar days prior to any LDAR monitoring conducted. If monitoring cannot be performed on the scheduled date, the Permittee shall notify EPA at least 1 week prior to the scheduled date and reschedule the monitoring to satisfy the monitoring frequency requirements.

***Observations**: Hilcorp (formerly ConocoPhillips) submits notices of LDAR monitoring to be conducted. Notices have been submitted on: 3/9/18; 8/7/17; 2/9/17; 7/5/16; 1/15/16; 7/22/15;*

10. The Permittee shall maintain a record of all EPA approved LDAR protocols.

***Observations**: During the records review, EPA observed the LDAR Protocol on file. Ms. Deal also provided a copy of the protocol on 6/25/18. Neither Ms. Deal nor Ms. Ostrand could find a copy of EPA's approval. However, the 7/31/12 letter submitting the Argenta and Sunnyside Compressor Station LDAR protocol indicates the protocol submitted on 7/31/12 was the same at the Ute LDAR CDP LDAR protocol which was approved in a 5/24/12 email from EPA.*

11. The Permittee shall maintain a record of the results of all LDAR monitoring and any necessary equipment repairs due to VOC leaks.

***Observations**: Hilcorp (formerly ConocoPhillips) submits semiannually and annually the results of all LDAR monitoring. The LDAR reports identify equipment leaks and repairs.*

G. Requirements for Records Retention

1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

***Observations:** Records for the previous two years were reviewed by Ms. Ostrand.*

2. Records shall be kept in the vicinity of the facility, such as at the facility, the location that has day-to-day operational control over the facility, or the location that has day-to-day responsibility for compliance of the facility.

***Observations:** Records were reviewed at Hilcorp's offices in Aztec, NM located somewhat near Argenta. Ms. Deal submitted additional records upon request.*

H. Requirements for Reporting

1. Annual Emission Reports

(a) The Permittee shall submit a written annual report of the actual annual emissions from all emission units at the facility covered under this permit; including emissions from start-ups, shutdowns, and malfunctions, each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act compliance for the Permittee.

Observations: *Annual emissions reports have been submitted, and show facility-wide emissions (tpy), as follows:*

Table 8: Reported annual emissions

Report Date	*Year*	*NOx**	*CO**	*VOC**	*PM**	*SO_2**	*CH_2O**	*Benzene*	*Total HAPs**
1/23/18	*2017*	*44.86*	*11.32*	*6.39*	*1.02*	*1.52*	*0.85*	*0.11*	*1.55*
3/28/17	*2016*	*46.09*	*11.61*	*6.45*	*1.04*	*1.56*	*0.87*	*0.11*	*1.57*
3/31/16	*2015*	*54.32*	*13.60*	*10.16*	*1.22*	*1.82*	*1.03*	*0.36*	*4.39*
3/31/15	*2014*	*43.54*	*10.79*	*7.02*	*0.97*	*1.45*	*0.83*	*0.23*	*3.02*

**NOx = nitrogen oxide; CO = carbon monoxide; VOC = volatile organic compound; PM = particulate matter; SO_2 = sulfur dioxide; CH_2O = formaldehyde; HAP = hazardous air pollutant.*

See discussion under Section C.5.(f), above, regarding engine operating time reporting errors in the 2016 and 2017 annual emission inventory.

(b) The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to r8AirPermitting@epa.gov.

2. All other documents required to be submitted under this permit, with the exception of the Annual Emission Reports, shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

All Documents may be submitted electronically to r8airreportenforcement@epa.gov.

3. The Permittee shall submit a written LDAR monitoring report each year no later than April 1st. The annual report shall include the semi-annual LDAR monitoring results for the

previous calendar year, including any necessary equipment repairs due to VOC leaks.

***Observations**: Hilcorp (formerly ConocoPhillips) submits annual reports of the LDAR monitoring that is conducted. Annual reports have been submitted on: 1/3/18; 3/28/17; 2/11/16; and 2/9/15.*

4. The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements and a description of the probable cause of such deviations and any corrective actions or preventative measures taken. A "prompt" deviation report is one that is post marked or submitted via electronic mail to r8airreportenforcement@epa.gov as follows:

   (a) Within 30 days from the discovery of any deviation of the emission or operational limits that is left un-corrected for more than 5 days after discovering the deviation;

   (b) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee's ability to meet the emission limits.

***Observations**: Hilcorp (formerly ConocoPhillips) submits has submitted annual deviation reports as follows:*

Table 9: Deviation reports

Report Date	*Deviations noted*
1/31/18	• *Failing to meet engine pressure drop requirements* • *Failing to notify EPA prior to testing* • *Failing to submit test report within 60 days.*
3/28/17	• *Failing to meet engine pressure drop requirements* • *Performance test conducted on 3/7/16 and 6/14/16 consisted of one 21-minute run in lieu of three 1-hour runs per COP's updated test protocol dated 4/11/16 that was approved by EPA on 7/12/16.* • *Failing to notify 30-days before 12/12/16 test.*
3/31/16	• *Failing to meet engine pressure drop requirements* • *Performance test conducted on 3/9/15, 6/2/15, and 12/7/15 consisted of two 20-minute run in accordance with previous Title V permit in lieu of three 1-hour runs as required in the current permit. The vendor inadvertently conducted the performance testing based on previous permit requirements.* • *Failing to notify 30-days before 12/12/16 test.*
3/31/15	• *Failing to meet engine pressure drop requirements.* • *Performance test conducted on 6/24/14 and 6/26/14 consisted of two 20-minute run in accordance with previous Title V permit in lieu of three 1-hour runs as required in the current permit. The vendor inadvertently conducted the performance testing based on previous permit requirements.*

5. The Permittee shall submit a written report for any required performance tests to the EPA Regional Office within 60 days after completing the tests.

Observations: *Generally, Hilcorp (formerly ConocoPhillips) submits reports as required, except as highlighted below.*

Table 10: Performance test submittals

Date of testing	*Date report submitted*
9/20/17	*1/30/18*
9/6/16 to 9/7/16	*9/20/16*
9/2/15	*10/1/15*
9/18/14	*10/24/14*

6. The Permittee shall submit any record or report required by this permit upon EPA request.

Observations*: Following the onsite inspection, Ms. Ostrand requested multiple documents. Ms. Deal provided the information as requested.*

X. MACT ZZZZ Requirement:

Hilcorp indicated that the engines at Argenta are considered remote designated engines in accordance with NESHAP ZZZZ practices.

A. 40 C.F.R. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you. *[Note 2b does not apply to Argenta's engines.]*.

Table 2d - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

8. For each Non-emergency, non-black start 4SLB and 4SRB remote stationary RICE >500 HP You must meet the following requirement, except during periods of startup:
a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[5]
b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary

(b) through (e) *do not apply to Argenta*.

[5] Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

Observations: *EPA observed the initial and annual remote determinations during the records reviews.*

B. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in *Table 6* to this subpart.

Table 6 - Continuous Compliance With Emission Limitations, and Other Requirements

9. Existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are *remote stationary RICE*

a. Work or Management practices

i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(b) – (d), and (f) *do not apply to Argenta.*

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.

Observations: *During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. Ms. Deal indicated that the catalyst maintenance is also included in the Task Lists. In an email dated 6/6/18, Ms. Deal provided engine and catalyst manufacturer recommended maintenance specifications. In an email dated 6/21/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-*

month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018. The records indicate that the oil and oil filter is inspected or replaced, and the spark plugs and belts inspected or replaced, regularly.

C. 63.6655 What records must I keep?

(a) –(d) and (f) *Do not apply to Argenta.*

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) and (2) *Do not apply to Argenta.*

(3) An existing stationary RICE located at an area source of HAP emissions subject to the management practices as shown in Table 2d to this subpart.

Observations: *See discussion above.*

D. § 63.6675 What definitions apply to this subpart

Remote stationary RICE means stationary RICE meeting any of the following criteria:
(1) Stationary RICE located in an offshore area … *Does not apply to Argenta.*

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment

on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25-mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Observations: *EPA observed the initial and annual remote determinations during the records reviews.*

XI. MACT HH Requirements:

A. 40 CFR § 63.764 General standards.

(e) Exemptions. (1) The owner or operator of an area source is exempt from the requirements of paragraph (d) [glycol dehydration standards] of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).

(i) The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this subpart; or

(ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in §63.772(b)(2) of this subpart.

Observations*: In an email dated 5/29/18, Ms. Deal provided Argenta GLYCalc runs dated 3/21/18 and 9/14/16 and an extended gas analysis with a sample date of 12/14/17. The 3/21/18 GLYCalc run uses the gas concentrations from the 12/14/17 extended gas analysis. The 12/14/17 GLYCalc run uses Lean Glycol rate as 1.1 gpm and Dry Gas flow rate as 9.3 MMSCF/day and calculates benzene emissions to be as follows: Uncontrolled regenerator – 0.0515 tpy.*

Ms. Ostrand reran the 3/21/18 GLYCal run using the same information in Hilcorp's 3/21/18 GLYCalc run except increasing the lean Glycol flow rate to 1.67 gpm[6]. The resultant benzene emissions were as follows: Uncontrolled regenerator – 0.0747 tpy.

The 9/14/16 GLYCalc run indicates that an extended gas analysis dated 7/20/16 was used to calculate emissions. The wet gas concentrations used in the 9/14/16 GLYCalc run appears to line up with gas concentrations observed in the 7/20/16 extended gas analysis, which was submitted in a subsequent email on 5/29/18. The 9/14/16 GLYCalc run uses Lean Glycol rate as 1.12 gpm and

[6] *In an email dated 6/6/18, Ms. Deal provided information indicating that the Argenta dehydrators use Kimray pump model #10015. Information from Kimray literature (https://kimray.com/documents/Catalog_Pages/PB_0004.pdf) indicates that the maximum pump rate for model #10015 is 100 gallons per hour [=1.67 gpm].*

Dry Gas flow rate as 5.5290 MMSCF/day and calculates benzene emissions to be as follows: Uncontrolled regenerator – 0.0543 tpy.

B. 40 CFR § 63.772 Test methods, compliance procedures, and compliance demonstrations.

(b) Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

(ii) The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

(2) The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (ii) of this section. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene or BTEX emissions using the model GRI-GLYCalcTM, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

Observations: *See discussion above.*

C. 40 CFR § 63.774 Recordkeeping requirements.

(d)(1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, as appropriate, for that glycol dehydration unit.

(i) The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with §63.772(b)(1), or

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as

determined in accordance with §63.772(b)(2).

Observations: *See discussion above.*

XII. Closing meeting:

We left the facility at 3:56 pm. On May 15, 2018, we went to Hilcorp's offices for a record review. We arrived at 10:28 am and left at 1:20 pm. Ms. Ostrand indicated that she would be requesting additional information.

XIII. Findings:

As of the date of this inspection report, not all needed information was provided. Once all information is received EPA will issues an addendum to this report. EPA is still waiting to receive catalyst replacement information and catalyst pressure drop readings, both from 5/1/16 to 4/30/18.

- *If ASTM D6348 is going to be used for performance testing, the performance test protocol should be revised to assure that ASTM D6348-03 is used rather than ASTM D6348-12.*
- *Based on the information provided, it's not clear whether all appropriate actions have been taken when engine pre-catalyst temperature falls below 405°F.*
- *While onsite, the pressure drop observed across the catalysts on engines E001 and E002 was greater than 2 inches of water from the baseline pressure drop measured during the last performance test on 9/20/17.*
- *It appears that a performance test was not conducted within 90 calendar days after engine E001 was installed in 4/2015.*
- *When Hilcorp initially purchased Argenta they were late in submitting performance test results and failed to notify EPA of upcoming testing. This issue has since been resolved.*
- *Annual deviation reports indicate that the pressure drop across engine catalysts hasn't always met permit requirements. It's not clear whether all appropriate actions have been taken when this has occurred. As of the date of this report the pressure drop data had not been provided to the EPA.*

XIV. Picture/IR Video Log:

Table 11:

Image #	*Photographer*	*Date and Time*	*Description*
RIMG0010.JPG	*Laurie Ostrand*	*5/14/18, 3:09 pm*	*Argenta CS compressor building*
RIMG0011.JPG	*Laurie Ostrand*	*5/14/18, 3:09 pm*	*Argenta CS inlet*
RIMG0012.JPG	*Laurie Ostrand*	*5/14/18, 3:09 pm*	*Argenta CS produced water tank*
RIMG0013.JPG	*Laurie Ostrand*	*5/14/18, 3:10 pm*	*Argenta CS Dehy #1 on right, Dehy #2 on left*
RIMG0014.JPG	*Laurie Ostrand*	*5/14/18, 3:10 pm*	*Argenta CS Dehy #3 on right Dehy #4 on left*
RIMG0015.JPG	*Laurie Ostrand*	*5/14/18, 3:14 pm*	*Argenta CS Dehy #1 pump*
RIMG0016.JPG	*Laurie Ostrand*	*5/14/18, 3:18 pm*	*Argenta CS Dehy #2 pump*
RIMG0017.JPG	*Laurie Ostrand*	*5/14/18, 3:31 pm*	*Argenta CS, backside of engines showing catalysts. Engines #1 and #2 have catalysts in the muffler (catalysts are lengthwise in muffler). Catalyst in #3, third from right, is a drop-in catalyst (see rectangle drop*

			in point neat building),
RIMG0018.JPG	*Laurie Ostrand*	*5/14/18, 3:31 pm*	*Argenta CS, Engine #4 catalyst is a banded catalyst (i.e., circular catalyst inside pipe prior to the muffler)*
RIMG0019.JPG	*Laurie Ostrand*	*5/14/18, 3:34 pm*	*Argenta CS, Dehy #3 pump*
RIMG0020.JPG	*Laurie Ostrand*	*5/14/18, 3:35 pm*	*Argenta CS, Dehy #4 pump*

Table 12 – FLIR Video Log

Video #	Photographer	Date and Time	Description
0221_Argenta Dehy 1.mp4	*David Heermance*	*5/14/18; 3:21 pm*	*Appears to be emissions from a gauge on the dehydrator*
0222_Argenta E1.mp4	*David Heermance*	*5/14/18; 3:29 pm*	*Appears to be an exhaust leak from the E1 Engine.*
0223_Argenta E1 2.mp4	*David Heermance*	*5/14/18; 3:33 pm*	*Appears to be an exhaust leak from the E1 Engine.*
0224_Argenta E1 Top.mp4	*David Heermance*	*5/14/18; 3:35 pm*	*Appears to be an exhaust leak from the top of E1 Engine.*
0225_Argenta E2.mp4	*David Heermance*	*5/14/18; 3:37 pm*	*Appears to be an exhaust leak from the E2 Engine.*

Attachment 1 Pneumatics at Argenta

PropertyID	*EQUIP_ID*	*EQUIP_DESC*	*FL_NAME*	*MFG_MAKE_MODEL*	*PneumControllerFunction*	*PneumControllerType*	*installDate*
05FAC00001	*0*	*STANDALONE CONTROLLER*	*ARGENTA CDP*	*ASCO EF 8314 G301*	*Solenoid valve*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*0*	*STANDALONE CONTROLLER*	*ARGENTA CDP*	*ASCO EF 8314 G301*	*Solenoid valve*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*0*	*STANDALONE CONTROLLER*	*ARGENTA CDP*	*ASCO EF 8314 G301*	*Solenoid valve*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*0*	*UNLISTED EQUIPMENT*	*ARGENTA CDP*	*EMERSON/FISHER 4194*	*Pressure*	*Low-Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*0*	*STANDALONE CONTROLLER*	*ARGENTA CDP*	*EMERSON/FISHER i2P-100*	*Electro-pneumatic transducer*	*Low-Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466101*	*SEP,VERT,2PH*	*ARGENTA CDP*	*KIMRAY GEN II LLC Back Mount*	*Float operated level controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466102*	*SEP,HORI,2PH,(#4)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466102*	*SEP,HORI,2PH,(#4)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466102*	*SEP,HORI,2PH,(#4)*	*ARGENTA CDP*	*NORRISEAL 1001A*	*Level*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466103*	*SEP,HORI,2PH,(#2)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466103*	*SEP,HORI,2PH,(#2)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466103*	*SEP,HORI,2PH,(#2)*	*ARGENTA CDP*	*NORRISEAL 1001A*	*Level*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466104*	*SEP,HORI,2PH,(#1)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466104*	*SEP,HORI,2PH,(#1)*	*ARGENTA CDP*	*KIMRAY T12*	*Temperature controller*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*
05FAC00001	*10466104*	*SEP,HORI,2PH,(#1)*	*ARGENTA CDP*	*NORRISEAL 1001A*	*Level*	*Intermittent Bleed Pneumatic Devices*	*Pre-2011*

05FAC00001	10466106	SEP,HORI,2PH,(#3)	ARGENTA CDP	KIMRAY T12	Temperature controller	Intermittent Bleed Pneumatic Devices	Pre-2011
05FAC00001	10466106	SEP,HORI,2PH,(#3)	ARGENTA CDP	KIMRAY T12	Temperature controller	Intermittent Bleed Pneumatic Devices	Pre-2011
05FAC00001	10466106	SEP,HORI,2PH,(#3)	ARGENTA CDP	NORRISEAL 1001A	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
05FAC00001	11639472	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#4)	ARGENTA CDP	MURPHY L1200	Level - Electric	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639472	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#4)	ARGENTA CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639473	PKG,CMP,WAUKESHA , L7042GL,ARIEL,JGK-4(#3)	ARGENTA CDP	MURPHY L1200	Level - Electric	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639473	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#3)	ARGENTA CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639474	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#2)	ARGENTA CDP	MURPHY L1200	Level - Electric	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639474	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#2)	ARGENTA CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639475	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#1)	ARGENTA CDP	MURPHY L1200	Level - Electric	Intermittent Bleed Pneumatic Devices	Pre-2006
05FAC00001	11639475	PKG,CMP,WAUKESHA, L7042GL,ARIEL,JGK-4(#1)	ARGENTA CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006